

Members of the committee, thank you for the opportunity to speak with you today about the actions the State of Michigan is taking to respond to the crisis in Flint, to help those who were affected, and to ensure the health and safety of citizens in our state.

On behalf of Governor Snyder, I would like to thank you and your fellow legislators for the hard work you have done to help the people of Flint and for the work you are conducting in these hearings. As Governor Snyder said in his testimony to Congress, he and this administration are committed to delivering permanent, long-term solutions and the clean, safe drinking water that every Michigan citizen deserves. He thanks you for your partnership in helping to make that happen.

I speak to you today as Governor Snyder's cabinet director, as a member of the Flint Water Interagency Coordinating Committee (otherwise known as the FWICC), and as the former director of LARA.

There are three issues I would like to address today as part of my testimony, all of which are important for the people of Michigan.

1) FWICC

The first issue I would like to address is the work of the Flint Water Interagency Coordinating Committee. Governor Snyder created the FWICC via executive order to bring together experts to analyze any long-term effects of high lead levels in Flint residents and recommend action.

Members of the FWICC include the Mayor of the City of Flint, three experts from the state, three members representing Genesee County, three representatives from the city of Flint, and three subject matter experts -- including Professor Marc Edwards and Dr. Mona Hanna-Attisha.

Under Executive Order 2016-1, the FWIC is charged with a host of responsibilities including creating an incident action plan designed to assist state and local authorities in ensuring safe drinking water for the residents of Flint and reviewing all of the recommendations of the Flint Water Advisory Task Force. All of this work is ongoing.

Currently, the FWICC has created a number of targeted subcommittees aligned with the charges to the FWICC contained in the executive order. These include:

- Incident Action Plans: Chaired by Captain Kelenske of the MSP.
- Communications: Chaired by Harvey Hollins, Director
- Water Infrastructure: Chaired by DEQ Director Keith Creagh
- Water Quality: Also Chaired by DEQ Director Creagh
- Health and Education: Chaired by DHHS Director Nick Lyon
- KWA: Chaired by Treasury Director Nick Khouri
- Policy Subcommittee: Chaired by me

2) Lead Copper Rule

The second issue I would like to address is changes to the lead copper rule to better protect all citizens. This is an issue that was assigned to the Policy Subcommittee – and specifically to a work group created within that committee made up of:

- Dr. Marc Edwards
- Dr. Yanna Lambrinidou
- Myself and new LARA Director Shelly Edgerton
- Mark Valacek, Genesee County Health Department
- Elizabeth Hertel, DHHS, and
- Bryce Feighner/Richard Benzie DEQ

We have learned that the federal lead and copper rule which regulates our drinking water system is not sufficient to protect Michiganders. It's dumb, it's dangerous, and we aren't going to wait for the federal government to fix it.

As Michigan worked to resolve the water crisis, it became evident that what happened in Flint is not an isolated occurrence – and the rest of state and nation needs to pay close attention to water quality standards.

- We have had red flags before – from Washington DC, as far back as 2001, to Chicago in 2011, and to more recent cases in Philadelphia and Newark.
- The AP recently performed an analysis of EPA data and found that nearly 1,400 water systems serving 3.6 million Americans across the country exceeded the federal lead standard at least once between 2013-2015.

Earlier this month, a FWICC Policy Subcommittee outlined a series of needed reforms to make Michigan a national leader on lead and copper safety, including:

- Phasing in a reduction in the lead action level from 15 ppb to 10 ppb by 2020
- Requiring annual lead and copper testing for all schools, day cares, adult foster care facilities, substance abuse clinics, and public hearing facilities;
- Alerting the public better by requiring notices to all customers as well as public notices to all schools, community centers, and child care centers when a public water system exceeds the lead action level.
- Reduce Lead Customer notice requirements from 30 days to 2 business days.
- Reduce community wide notices (required when LAL is exceeded) from 60 days to 30 days.
- For the first time, establish a Household Action Level at 40 ppb kicking in heightened notice and information as well as access to blood lead testing.
- Removing gaps in testing and sampling to assure that only high risk homes are included and that strict and appropriate sampling protocols are followed.

- Protecting homebuyers and renters by requiring disclosure of lead service line status in all home sales and rental contracts;
- Requiring public water systems to follow defined corrosion control treatment standards whenever there is a shift in water sources or water treatment.
- Requiring every public water system to adopt a full lead service line replacement program within 10 years and adopting strict prioritizations for those replacements.
- Prohibiting partial lead service line replacements.
- New fines for violation of the state's lead and copper regulation rules.

This is a stronger, safer, smarter rule that will better protect the people of Michigan and serve as a model for other states and the nation.

3) **FAUCET REPLACEMENT**: The third issue I'd like to address is work that LARA is doing to ensure safer drinking water in our state, including our schools.

In an earlier supplemental, the Legislature authorized \$2 million for replacement of faucets and fixtures used by youth and fragile adults in Flint. There was a change in the EPA Safe Drinking Water Act changing how much lead could be used when manufacturing drinking water fixtures. Effective January 1, 2014, all drinking fixtures were required to be manufactured with 0.025% (lead free).

The purpose of the program was to insure that all drinking water fixtures in our schools, large day care centers, adult foster care facility centers, and nursing homes met the new 2014 standards. Our original goal was to have 90% of fixtures and faucets in schools by April 1st and 90% of fixtures in remaining facilities by May 1st. To date:

- Schools: 927 installed (99%). We have been 33 facilities (94%). At this point, we only Flint Youth Theatre to complete as well as a special faucet for the Michigan School for the Deaf (and Alpha Montessori has opted not to participate as they are moving out of a leased facility).
- Child Care Facilities: 218 installed (97%) 34 of 35 licensed large facilities have been completed.
- Adult Foster Care Fixtures: 131 installed (96%) – 11 of 12 facilities are completed.
- Health Care Facilities: We have completed all installs for health care facilities.
- Total: 1,338 fixtures installed **98%**.

We are well ahead of schedule.

Would like to take this opportunity to public thank our partners in this effort – Local 370 (Harold Harrington and Ben Ranger and their team of plumbers) as well as Masco Company/Delta Faucets who generously donated a significant amount of materials.

I close by thanking you again for your efforts to help the people of Flint. Out of this crisis, we have been reminded of the threat that lead poses to the children of Michigan – and to all

citizens. And we are now adopting reforms that will better protect the health and safety of all Michiganders. Thank you, and I welcome your questions.

FWICC Policy Subcommittee

Lead and Copper Rule Recommendations

April 15, 2016

Lead and Copper Rules - Background

As Michigan has worked to resolve this water crisis, it has become evident that what happened in Flint is not an isolated occurrence, and the rest of the nation needs to pay close attention to water quality standards.

We have had red flags before – from Washington, D.C. as far back as 2001, to Chicago in 2011, and to more recent cases in Philadelphia and Newark.

The AP recently performed an analysis of ERA data and found that nearly 1,400 water systems serving 3.6 million Americans across the country exceeded the federal lead standard at least once between 2013 and 2015.

The results are staggering. The water crisis in Flint has given the entire country a reason to re-evaluate the way we measure the safety of water for our children and families to drink. It's raised questions about how the federal lead and copper rule has been implemented.

Lead and Copper Rule – FWICC Role

By executive order, Governor Snyder created the FWICC to bring together a wide range of experts to work on long-term solutions to the Flint water crisis.

Through close collaboration between state and local government, air subject matter experts, the focus of this subcommittee is to ensure safe drinking water for Flint and the entire state by having more stringent lead-level regulations than what federal rules require.

Current Federal LCR Issues

Utility centric – allows utilities to operate, promoting that they meet federal standards, which a not health based, and do not protect citizens.

Shared responsibility model – except most citizens don't know they were given this responsibility assume utilities keep them safe.

Failure to even address stated purpose – minimization of lead in water at consumer taps. Per water industry, up to 70% of PWS with lead service lines would **not** pass action threshold with inappropriate sampling.

Leaves underlying problem – doesn't replace lead pipes (or only replaces them partially), other lead-bearing plumbing, or other infrastructure damage (galvanized iron, etc.) that may be there or decades more.

Disasters – D.C., Flint, etc.

History – since 1991, multiple reform efforts have failed, leaving the public still vulnerable to disasters.

Changes Proposed - Overview

overarching Goal: To develop a national model that maximizes consumer protection and ensures transparency and public education at all times - thereby preventing additional water crises.

Goal 1: Make the LCR Citizen Centric and make consumers informed participants in the LCR's shared responsibility model.

- Citizen Centric LCR oversight with public panels required at both the department and local level to ensure active public participation and awareness.
- Stringent notifications to assure prompt and accurate notice to impacted residents when the Lead Action Level is exceeded as we robust public education on the risks and dangers of lead at all times.
- Require collaboratively developed robust public education programs.

Goal 2: Achieve the stated purpose of the rule by minimizing lead in water at consumer taps.

- Elimination of gaps in sampling and testing protocols to assure that high risk homes are included and tested in transparent and scientifically valid methods.

Goal 3: Remove the underlying problem.

- Aggressive lead pipe inventory and analysis requirement with remediation strategies that include a complete ban on partial lead pipe replacements and full system replacement.

Goal 4: Enforce the rule.

Exceeding Federal Standards

Goal 1: Citizen Centric - Oversight

Creates a statewide Advisory Commission on Drinking Water Quality to assure citizen membership, input, and access. The new Commission will be charged with continuously assessing science, testing, monitoring protocols, and water treatment and corrosion control. The Commission will and provide advice and counsel to the Governor, the Legislature, and impacted state and local agencies on implementation of the act, areas for improvement, and best practices to optimize the protection and safety of drinking water.

Requires the establishment of Water System Advisory Councils for each Public Water System (PWS) to assist citizen membership, input, and access, to oversee the enforcement of the LCR, to develop plans for community outreach and education, and to collaborate with community groups to assure correct implementation of the LCR. The Council will assure access to information regarding corrosion control, testing results, remediation processes, educational efforts and general water safety. Allows systems serving under 500 customers to utilize collaborative councils with other PWSs or delegate their responsibilities to the Advisory Commission.

Require the Advisory Commission to lead annual training on lead in water, the health effects of lead, and LCR. Training would be targeted toward federal, state, and local staff, and local Water System Advisory Councils. Training must include active participation and input from local community groups and representatives.

Exceeding Federal Standards

Goal 1: Citizen Centric - Stringent Public Notifications

Require lead disclosure statements on interior plumbing as a part of all home sales and all home rental contracts.

Reduce Lead Customer Notice requirement for notice to individual customers that their test results exceed the LAL from 30 days to 2 business days.

Where a PWS exceeds the LAL, the system will be required to complete a public system-wide notification within two business days and then complete a more in depth public education in 30 days (the current requirement is 60 days).

Expand the information required where a PWS exceeds the LAL.

Where a PWS exceeds the LAL, require notices to all billed customers as well as public notices to all schools, community centers, and child care centers.

Establish State Household Action Level of 40 ppb that requires strict notification and access to blood lead testing.

Exceeding Federal Standards

Goal 1: Citizen Centric - Robust Public Education

- require delivery of robust public education campaign regardless of whether a PWS meets or exceeds the LAL.
- based on the parameters adopted by the Advisory Commission on Drinking Water Quality, require each PWS to collaboratively develop a public education campaign with the local Water System Advisory Council on the dangers of lead and copper at all times.
- require the public education campaign to include (1) specific information on the potential adverse health effects of lead contamination on infants, children, and fetuses, (2) the potential sources of lead, (3) the PWS compliance history on lead including most recent testing data, (4) the cost and availability of replacement fixtures, and (5) contact information for medical assistance.
- require the public information campaign to include accurate and up-to-date information on the PWS system inventory.
- require the public education campaign to be targeted to both the general population and any diverse population group including non-English speaking, within the PWS service area.
- require the public education campaign to be delivered on a regular basis by multiple media including print, internet, and community and neighborhood forums.

Exceeding Federal Standards

Goal 2: Achieve Stated Purpose of the Rule

Lead Action Level: Phase in a reduction in the Lead Action Level from 15 ppb to 10 ppb by 2020 in alignment with the standards currently used by the World Health Organization.

Corrosion Control Treatment: Require comprehensive lead and copper analysis prior to any significant change in water source or treatment by a PWS and require all CCT to be performed under the guidance of a licensed engineer and under the supervision of the Agency.

Compliance: Eliminate mechanisms that permit PWSs to meet LCR requirements within water quality ranges and, instead, deem compliance to have occurred only when a Lead Action Level is met or approved corrective action is put in place.

Additional, Supplemental Testing Requirements: Require annual testing of state facilities involving children and fragile adults including schools, day care facilities, nursing homes, health facilities, and adult foster care facilities. Facilities exceeding standards will be required to take remedial action.

Exceeding Federal Standards

Goal 2: Achieve Stated Purpose of the Rule

pling

remove current LCR gaps to ensure that testing and sampling captures worst-case lead in high risk homes.

require a phased in system inventory for all PWS including analysis of composition, estimated age, and length of system components.

require annual sampling – eliminate variations currently afforded based on size and history of system.

remove exceptions for reduced sampling and define sample bottle size and require wide-mouth openings.

require state and local advisory council oversight of site sampling selection criteria.

require site sampling selection criteria to prioritize based on (1) length of lead service line, (2) homes with less water use than normal, (3) homes with higher water age, and (4) homes with galvanized iron after a lead pipe.

require two sample draws and specifically prohibit any diversion from specified protocol, including preflushing and aerator cleaning/removal prior to sampling.

require that annual sampling occurs in summer months unless alternate schedule is approved based on explicit knowledge that problems are worse in the PWS in other periods.

Exceeding Federal Standards

Goal 3: Remove the Underlying Problem

Prohibit partial lead service line replacements both during LCR remediation and during system maintenance.

Require secondary notification to homeowners and neighbors during the replacement process to warn of physical disruption dangers.

Require each PWS to adopt a full LSL replacement program within 10 years unless a longer period is specifically authorized by the Agency.

Clarify the duty and ability of a PWS to replace lead service lines up to the resident's or business's meter.

Prioritize replacement based on estimated length and age of service line, history of high lead water and high lead blood results, vulnerable populations, and where other distribution system improvements, such as water main replacements, provide opportunity for LSL replacement.

Exceeding Federal Standards

Goal 4: Enforce the Rule

Establishes state fines for violations of state rules to assure accountability and transparency.

Clear and understandable fine parameters will be established based on the type of violation with automatic increased fine levels for repeat violations.

Fine revenue will be deposited in the Drinking Water Revolving Fund. Require regulatory history – including any fines imposed – to be included in bold in all customer billings.

Current and Proposed

Current	Current	FWICC Policy Committee Proposed
Lead threshold	10% at/over 15 ppb	Recommend reduction to 10 ppb by 2020.
Lead selection criteria	Residences with LSLs or lead plumbing	Supplemental sampling of schools and public places involving children and fragile adult recommended for immediate annual testing. Sites with previous partial replacement testing, including galvanized iron connections to home, should be considered once inventory is completed.
Lead pipe size	For large systems - 100 to 60; 60 to 30	Retain current sample size but permit no reductions. Include locations with elevated lead in bloods and samples from neighbors of over 15 ppb, but included those as supplemental samples only.
Lead testing frequency	Annual; Triennial; (every 9 years for small systems)	Annual sampling without exceptions based on compliance history or system size.
Lead test draw	First draw after at least 6 hour rest; no preflushing and aerator cleaning permitted	Two draws required. No preflushing or aerator cleaning within a defined period prior to sampling. Bottle configuration specified with additional specificity on size and configuration of test sample bottles. No diversion of any sort permitted from sampling protocols.
Lead test site location	Required to be based on worst case homes but gaps in that determination	Sample site selection recommendations to be approved by state commission and local council. Systems required to provide documentation that targets homes meeting tier II conditions. In the sample site selection process, preference will be given to longer LSLs homes with less water use than normal, homes with higher water age, and homes with galvanized iron after lead pipe.
Lead level required on high sample households	None	Establish a Household Action Level at 40 ppb requiring heightened notice and education household water system diagnostics, and access to full blood lead testing for all resident

urrent and Proposed (Cont.)

	Current	FWICC Policy Committee Proposed
education requirements	With water bill; At risk groups; Press release	Recommendations include two tiers (state and PWS specific) advisory council structure heightened public education and notification requirements, and real estate disclosure forms. Requires robust public education campaign whenever a PWS meets or exceeds LAL. Public education campaigns shall include targeting to fragile and hard to reach populations and shall include multiple media usage.
service line replacement	Only when above action level; 7% per year; allows partial replacement	Inventory and physical replacement plan required for all PWSs. No partial replacement. Clarification of control of lead service lines on private property required. Notification requirements must be strengthened and additional neighborhood and individual notifications should be mandated on the dangers of physical disruption. Database should be maintained of refused access into homes. Lead analysis (similar to radon testing) required for home sales.
quality parameters	In compliance by meeting parameters	Decouple.
monitoring control	Optimize with extended time period for sampling and implementation	Increased specificity on CCT optimization, CCT analysis required within set time parameters when PWS shifts water source. Evaluation and adjustment of CCT must take into account all the factors in a given system that could contribute to high lead release. Complete transparency required on every requirement of rule.
lead oversight	Not required	Two-tier approach with Advisory Commission on Drinking Water Quality required on the state level and each PWS required to have a Water System Advisory Council.
inventory	Not required	Regardless of LAL adherence status, each PWS will be required to complete a full system inventory including details on all parts and materials used.
lead notifications		Expand content and targets of notification requirements. Include neighbors and community centers in notice requirements. Reduce Lead Customer Notice period from 30 days to 2 business days.
enforcement	Tied to federal penalty scheme	Separate state fine and enforcement system built around unique state requirements. Fines tied based on offense and doubled for multiple offenses. Mandatory notification to customers in bills and separate outreach for certain violations.